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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/897,429		HALES, ROBERT J.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jason Proctor		2123	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-16,19 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-16,19 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 1, 3-16, 19, 21, 22, 24, and 31-35 were rejected in the office action of 30 April 2007.

Applicants' submission on 30 October 2007 has amended claims 1 and 13, and canceled claims 21, 22, and 24. Claims 1, 3-16, 19, and 31-35 are pending.

Claims 1, 3-16, 19, and 31-35 are rejected.

#### *Priority*

1. Applicant's claim for domestic priority under 35 U.S.C. § 119(e) is acknowledged. The Examiner thanks Applicants for clarifying where support for the claims is found.

Applicants have submitted (27 July 2005) that:

Support is believed to exist in the '303 and '040 applications for each of the now-pending claims. [...] Thus, it is believed that enabling support is found in the '303 application for claim 10, and for the same or similar reasons the '303 and '040 applications are believed to fully support the balance of the now-pending claims.

Applicants' arguments have established that the '303 and '040 application fully support the pending claims.

#### *Claim Interpretation*

Regarding the phrase "substantially instantaneously identical" as recited by claim 13, Applicants have submitted (27 July 2005) that:

One of skill in the art would readily appreciate that the meaning of the term "substantially instantaneously identical" reflects the context of the system in which the term is used. Thus for example where data is mirrored on two servers, as a practical matter, the same data is available to users of both servers on a

timeframe that is otherwise compatible with system operation. As such, one of skill in the art would understand the subject claim limitation without the expression of an absolute time span.

Regarding the phrase “detail drawing” as recited by claim 1 and others, the Examiner provided an interpretation in the previous Office Action. In response, Applicants submit (28 February 2007) that:

In relation to the phrase “detail drawing,” section 16.1 of provisional application 60/236,040 states that “[t]o create a new detail drawing... a dialog box will appear asking if you want to, ‘Create a new detail drawing?’ You will then be prompted to name the detail drawing...” Applicant respectfully submits that the term “detail drawing” thus refers to a discrete entity that can be “separately identified.” The detail drawing is therefore not a functional equivalent of merely magnifying (zooming in on) an otherwise existing entity.

Additionally, the claim language has been amended to read “a separately identified detail drawing” (claim 1) and “a separately identified detailed layout” (claim 13). Applicants’ interpretation is acknowledged.

Regarding the phrase “markup lines” as recited by claim 21, Applicants submit (28 February 2007) that “the term ‘markup line’ refers to a visual indication of a change proposed or made to a plan record.” The Examiner thanks Applicants for this clarification. Applicants’ interpretation is acknowledged.

### ***Response to Arguments – 35 USC § 102***

2. In response to the rejection of claims 1, 3-16, 18-19, 21-22, 24, and 31-35 under 35 U.S.C. § 102(a) as being clearly anticipated by “CADDstar Version 5.2 Help Document”, Applicants have submitted an affidavit under 35 U.S.C. § 1.130 declaring that the prior art

reference was authored in its entirety by or under the direction of the named inventor in this application. Accordingly, the rejection under 35 U.S.C. § 102(a) has been withdrawn.

**3. Regarding the rejection of claim 19 under 35 U.S.C. § 102(b) as being anticipated by "CADDStar Version 5.0 Help Manual Help Manual" and/or "CADDStar Version 3.81 Help Manual," Applicants argue primarily that:**

The Office Action proposes that the presence of the term "strand" suggests "optical fiber segments" identified to respective owners. Applicant respectfully traverses. One of ordinary skill in the art would understand that the term "strand" has long been used in relation to the electrical conductors. For example, the McGraw-Hill Standard Handbook for Electrical Engineers (1949) states:

Stranded conductors are used generally because of their increased flexibility and consequent ease in handling. The greater the number of wires in any given cross-section the greater will be the flexibility of the finished conductor... The flexibility of any given size of strand obviously increases as the total number of wires increases. It is common practice to increase the total number of wires as the strand diameter increases, in order to provide reasonable flexibility in handling. Emphasis added. Section 4-91, page 246, Standard Handbook for Electrical Engineers, 8<sup>th</sup> Edition, McGraw-Hill Book Company Incorporated, New York, Toronto, London, 1949.

It is clear that the strands referred to here are stranded electrical conductors or "wires." The same handbook makes no indexed mention of fiber optics or optical fiber; nor would one of ordinary skill in the art expect it to. Accordingly, Applicant submits that the discussion of stranded electrical conductors referred to above with respect to the "CADDStar Version 5.0 Help Manual" does not teach or suggest "optical fibers... wherein said first and second fibers include respective fiber segments identified to respective owners," or otherwise serve to anticipate claim 19.

The Examiner respectfully traverses this argument as follows.

Applicants' reliance upon Standard Handbook for Electrical Engineers (1949) is unpersuasive because it significantly predates the common use of any fiber optic communication equipment. The oldest US Patent for fiber optic communication equipment appears to be US Patent No. 2,979,632 to MacNielle, issued in April 1961, more than a decade after Applicants' reference was published. Therefore, the omission of fiber optic technology from Standard Handbook for Electrical Engineers is a result of that handbook's early publishing date, not because of a technically-related factual basis.

Applicants' conclusion that the term "strand" as used in the art at the time of Applicants' invention is unpersuasive because contemporary references do refer to fiber optic strands. See, for example, US Patent No. 5,904,614 to King, disclosing teachings such as:

Fiber optic cables include an inner glass core of very small diameter. The inner glass core, which is appropriately described as a fiber strand, is normally encased in an outer protective ceramic sleeve of a diameter that may be approximately 125 microns compared to a diameter of 8 microns, for example, for a single glass fiber strand. (column 1, lines 23-32)

Lastly, Applicants' reliance upon the technical teachings found in Standard Handbook for Electrical Engineers (1949) is unpersuasive because those teachings are inapplicable to the "CADDStar Version 5.0 Help Manual."

The "CADDStar Version 5.0 Help Manual" is clearly directed to a communication system wherein addresses (ownership) are assigned to individual strands (Section 6.9, Addressing). The cited portion of Standard Handbook for Electrical Engineers is clearly not directed to a communication system by describing "stranded conductors" with increased flexibility for power supply cables. As a person of ordinary skill in the art would be aware, the "stranded conductor" described by Standard Handbook for Electrical Engineers will contain the same power (or signal) on every single strand or wire contained therein by virtue of capacitive coupling. Therefore, this "stranded conductor" is clearly unsuitable for assigning an address (or ownership) to individual strands, as described by "CADDStar Version 5.0 Help Manual". Clearly, "CADDStar Version 5.0 Help Manual" and Standard Handbook for Electrical Engineers are directed to fundamentally different "strands".

Applicants' arguments regarding claim 19 have been fully considered but have been found unpersuasive.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 19 is rejected under 35 U.S.C. § 102(b) as being anticipated by “CADDStar Version 5.0 Help Manual” and/or “CADDStar Version 3.81 Help Manual”.

As set forth above, the publication date of “CADDStar Version 5.0 Help Manual” has been established as 11 April 1998.

As set forth above, the publication date of “CADDStar Version 3.81 Help Manual” has been established as 11 July 1997.

Applicants have stated in their response to the Requirement for Information (page 8, response to item 10 of the Requirement for Information):

Comparison of the United States provisional patent application number 60/236,040 (*hereinafter* the ‘040 application), the benefit of which is claimed in the present application, to the CADDstar Version 5.0 Help Manual shows that at least the sections labeled 16.0 (Details Menu)-16.11 (Designing from a Node to a Detail) are present in the ‘040 application, but not in the CADDstar Version 5.0 Help Manual. Accordingly, the invention as disclosed in sections 16.0-16.11 of the ‘040 application are neither disclosed nor suggested in the CADDStar Version 5.0 Help Manual.

Claim 19 does not appear to draw support from sections 16.0-16.11 of the ‘040 application.

Applicants’ remarks attempt to distinguish claim 19 from these applied references through the claimed features of “first and second optical fibers... wherein said first and second fibers include respective fiber segments identified to respective owners.” “CADDstar Version 5.0 Help Manual” discloses “The Address command in the Strand pull down menu not only



allows the placement of addresses in the drawing. It also sets up some very important database relationships between the address, the street name, and the pole or pedestal serving the address. These database relationships will eventually be used to assign a subscriber's address to the tap and amplifier that serves it." (Section 6.9, Addressing). This disclosure appears to anticipate fiber segments ("strands") identified to respective owners ("subscriber's address", indicating the subscriber).

Therefore the Examiner concludes that claim 19 is anticipated by "CADDStar Version 5.0 Help Manual" and/or "CADDStar Version 3.81 Help Manual".

***Response to Arguments – 35 USC § 103***

**In response to the previous rejection of claims 1 and 3-6 under 35 U.S.C. § 103(a) as being unpatentable over Rappaport in view of Kuczun, Applicants argue primarily that:**

[...] Kuczun does not, whether taken alone or in combination with Rappaport teach or suggest "a separately identified integrated detail drawing" (emphasis added) as recited in claim 1. Rather, in Kuczun the napkin appears to teach only an access tool, and not an "integrated detail drawing" as illustrated, for example, in figures 16 and 17 as claimed.

The Examiner respectfully traverses this argument as follows.

In Kuczun, Figure 10 and related description appears to teach an "integrated detail drawing. Kuczun expressly teaches "A vendor web page has been linked to a sketch of a router" (Figure 10, caption, emphasis added), and "Figure 10 shows a router symbol linked to Cisco's web site that provides technical information on their routers" (page 6, left column, emphasis added).



The claim limitation has been amended to insert the word “integrated” in “a separately identified integrated detail drawing”. In at least Figure 10, Kuczun shows an “integrated” napkin drawing that is both simultaneously displayed with a vendor web page (“integrated”) and linked to technical information (“integrated”). Therefore, Kuczun does appear to teach this particular limitation.

**Applicants submit similar arguments related to the claimed “integrated detailed drawing” for claims 1, 3-16, and 31-35 being rejected under 35 U.S.C. § 103(a) using various references. In each rejection, Kuczun is cited as teaching the “detailed drawing” limitation. For the reasons set forth above, Kuczun is believed to teach an “integrated detailed drawing”. These rejections are maintained.**

**Regarding the rejection of claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rappaport in view of Tonelli, further in view of Bergholm, Applicants’ argue primarily that:**

[T]he maintenance of this rejection flows from the Patent Office’s misapprehension that the user of the term “strand” in relation to an electrical conductor would lead one of ordinary skill in the art to the invention of claim 19, including “a buffer with first and second optical fibers, said optical fibers having different nominal characteristics wherein said first and second fibers include respective fiber segments identified to respective owners”. Applicant respectfully submits that such is not the case, and that without the use of impermissible hindsight, one of ordinary skill in the art would not arrive at the claimed invention when presented with the combination of Rappaport, Tonelli, and Bergholm.

The Examiner respectfully traverses this argument as follows.

A person of ordinary skill in the art at the time of Applicants’ invention would understand the term “strand” to be applicable to fiber optic communication equipment as shown by, for example, US Patent No. 5,904,614 to King, disclosing teachings such as:

Fiber optic cables include an inner glass core of very small diameter. The inner glass core, which is appropriately described as a fiber strand, is normally encased in an outer protective ceramic sleeve of a diameter that may be approximately 125 microns compared to a diameter of 8 microns, for example, for a single glass fiber strand. (column 1, lines 23-32)

Further, Bergholm expressly teaches fiber optic components (Bergholm, column 4, lines 25-33).

Therefore, a person of ordinary skill in the art at the time of Applicants' invention, presented with the combined teachings of Rappaport, Tonelli, and Bergholm, would arrive at the invention specified in claim 19 for the reasons set forth below.

Applicants' arguments have been fully considered but have been found unpersuasive.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 1 and 3-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,499,006 to Rappaport et al., hereafter referred to as Rappaport, in view of "Network Tools and Tasks" by Kyle Kuczun and M.D. Gross, hereafter referred to as Kuczun.**

Regarding claim 1, Rappaport teaches a method for deploying a fiber optic communication network (column 1, lines 25-48) comprising:

Storing an attribute of an optical communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Selecting and reading the attribute from the database entry (column 6, lines 40-44);

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35); and

Forming a visible image representing said planned deployment, said visible image including a detail drawing (column 4, lines 33-50).

Rappaport does not explicitly teach including a separately identified detail drawing in the visible image.

Kuczun teaches a separately identified integrated detail drawing [*"Fig. 6. If the designer selects a specific node in the diagram more information appears."* (page 4); *"Trawl's scan of the network yields more data than can be concisely displayed (e.g., it includes the node types of the network devices). Clicking on an icon in the network diagram brings up additional information about the element (figure 6)."* (page 5, left column); alternatively, *"In Lookup, the designer can link drawings in the Napkin's sketchbook with specific sites on the web, for example, to vendor sites... Figure 10 shows a router symbol linked to Cisco's web site that provides technical information on their routers."* (page 6, left column); *"Figure 10. Bookmarking by drawing? A vendor web page has been linked to a sketch of a router."* (page 6)].

Rappaport and Kuczun are analogous art because both are drawn to network design tools.

It would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Kuczun and Rappaport by incorporating either the feature wherein "clicking on an icon in the network diagram brings up additional information" or the feature wherein a network symbol is linked to technical information such as a vendor drawing. The motivation for doing so is expressly provided by Kuczun, such as to improve the usability of the CAD tool [*"One of the most essential [advantages] is abstraction: Initial designs are abstract, final designs are detailed. The ability to view and manipulate a design through varying levels of abstraction is essential."* (page 7, right column)].

Therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Rappaport and Kuczun to arrive at the invention specified in claim 1.

Regarding claim 3, Rappaport teaches a computer-implemented method (column 4, lines 33-50) and recording associations in a computer database (column 6, lines 40-49).

Regarding claim 4, Rappaport does not explicitly teach physically deploying a physical instance of the component. However, Rappaport does teach a network design tool (column 5, lines 57-65; column 8, lines 23-35) and therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to physically deploy the network after it has been designed.

Regarding claims 5 and 6, Rappaport teaches identifying a geographic location for the network and displaying a graphical representation of the geographic location (column 4, lines 3-9; column 4, lines 33-38; column 8, lines 44-57).

**6. Claims 7-9, 12, and 31-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,499,006 to Rappaport in view of "Network Tools and Tasks" by Kuczun as applied to claims 1 and 5 above, and further in view of US Patent No. 4,866,704 to Bergman.**

Regarding claims 7-9, 12, and 31-35, Rappaport in view of Kuczun does not explicitly teach the fiber optic equipment recited by these claims.

Bergman teaches the fiber optic equipment recited by these claims (title, abstract, columns 1-2, etc.).

Bergman and Rappaport in view of Kuczun are analogous art because both are drawn to communications networks.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of the prior art to arrive at the inventions specified in claims 7-9, 12, and 31-35 as expressly motivated by Bergman, such as to design a network for spacecraft environments [*"This invention provides an asynchronous, high-speed, fiber optic local area network originally developed for tactical environments, such as military field communications systems, but having additional specific benefits for other environments such as spacecraft and the like."* (column 3, lines 11-34)].

**7. Claims 10-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,499,006 to Rappaport in view of "Network Tools and Tasks" by Kuczun as applied to claim 1 above, and further in view of US Patent No. 5,761,432 to Bergholm et al., hereafter referred to as Bergholm.**

Regarding claims 10 and 11, Rappaport in view of Kuczun teaches the limitations of claim 1.

Rappaport does not expressly teach identification of network components with an owner or with a communication circuit.

Bergholm teaches a planned deployment including identification of an instance with an owner (column 2, lines 39-63; column 4, lines 13-24).

Bergholm and Rappaport in view of Kuczun are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Bergholm with Rappaport in view of Kuczun by incorporating the attributes described by Bergholm, including ownership of the network equipment, in the computer parts database of Rappaport. The motivation to do so is expressly provided by Bergholm, such as to apprise network builders of inventory information and designing links to implement orders (Bergholm, column 1, lines 55-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Bergholm with Rappaport and Bergholm to arrive at the invention specified in claims 10 and 11.

**8. Claims 13 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over “Modelling Multiple View Of Design Objects In A Collaborative Cad Environment” by Rosenman in view of US Patent No. 6,499,006 to Rappaport, further in view of “Network Tools and Tasks” by Kuczun.**

Regarding claim 13, Rosenman teaches a first computer including a first memory storage device having application software encoded therein; a second computer, operatively connected to said first computer, having a second memory storage device adapted to record first project data; and a third computer, operatively connected to said second computer, having a third memory storage device adapted to record second project data, said first and second project data being substantially instantaneously identical (pages 21-23, “Computer-Supported Collaborative Design”);

Said software including a catalog portion being adapted to receive data defining a plurality of communication network components (page 22, “Design Object Database System”);

Said first data including a logical model (pages 21-23, “Computer-Supported Collaborative Design”).

Rosenman does not explicitly teach the claimed “design profile portion,” “calculations portion,” or “detail drawing portion.”

Rappaport teaches a design profile portion adapted to receive data defining a plurality of design rules related to logical design of a network [ *“Each component utilizes electromechanical information available from the parts list library that fully describes the component in terms of its physical operating characteristics (e.g., the noise figure, frequency, radiation characteristics,*



*etc.). This information is directly utilized during the prediction of wireless system performance metrics.*" (column 6, lines 26-60)].

Rappaport teaches a calculations portion adapted to calculate power and signal relationships within a communications network (column 7, lines 10-27, etc.). Rappaport teaches a multiple dwelling unit (FIG. 3, etc.).

Rappaport does not explicitly teach the claimed "detail drawing portion".

Kuczun teaches an integrated detail drawing portion adapted to record a separately identified detailed layout of a network (Figure 10).

Rosenman, Rappaport, and Kuczun are all analogous art because all are drawn to CAD.

Therefore, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Rappaport with Rosenman as expressly motivated by Rappaport, such as to simplify the design task [ *"Using the present method, it is now possible to assess the performance of a wireless communication system to a much higher level of precision than previously possible... The design of wireless communication systems is often a very complex and arduous task, with a considerable amount of effort required to simply analyze the results of predicted performance."* (column 5, lines 52-65)]. It would have been obvious to a person of ordinary skill in the art to combine the teachings of Kuczun with Rosenman in view of Rappaport as expressly motivated by Kuczun, such as to improve the usability of the CAD tool [ *"One of the most essential [advantages] is abstraction: Initial designs are abstract, final designs are detailed. The ability to view and manipulate a design through varying levels of abstraction is essential."* (page 7, right column)].

Therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of the prior art to arrive at the invention specified in claim 13.

Regarding claim 16, Rappaport teaches a software method for designing a network comprising a wireless communication portion (column 5, lines 52-65).

**Claims 14-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosenman in view of Rappaport in view of Kuczun as applied to claim 13, further in view of US Patent No. 4,866,704 to Bergman.**

Regarding claims 14-15, Rosenman in view of Rappaport in view of Kuczun does not explicitly teach designing a network having an optical fiber portion.

Bergman teaches a fiber optic network with buffers and different nominal characteristics (title, abstract, columns 1-2, etc.)

Bergman and Rosenman in view of Rappaport in view of Kuczun are analogous art because both are drawn to communications networks.

It would have been obvious to a person of ordinary skill in the art to combine the teachings of the prior art to arrive at the invention specified in claims 14-15 as expressly motivated by Bergman, such as to design a network for spacecraft environments [*"This invention provides an asynchronous, high-speed, fiber optic local area network originally developed for tactical environments, such as military field communications systems, but having additional*

*specific benefits for other environments such as spacecraft and the like.*" (column 3, lines 11-34)].

**9. Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport in view of Tonelli, further in view of US Patent No. 5,761,432 to Bergholm.**

Regarding claim 19, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that

can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

Bergholm teaches a method for network administration and design (column 2, lines 39-63) wherein network components (exemplified by links) are identified as belonging to circuits (network hierarchy) and have attributes such as ownership (column 4, lines 13-24).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Rappaport does not explicitly teach an optical cable having a buffer with first and second fibers, said fibers having different nominal characteristics, however the rejection formed in the rejection of claim 14 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by

Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

**10. Claims 1, 3-16, and 31-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over “CADDstar version 5.0 help manual” in view of “Network Tools and Tasks” by Kuczun.**

Applicants’ remarks distinguish claims 1 and 13 from the “CADDstar version 5.0 help manual” by way of the “detail drawing” limitation.

Kuczun teaches a “separately identified integrated detail drawing.”

Kuczun and “CADDstar version 5.0 help manual” are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicants’ invention to combine the teachings of Kuczun with “CADDstar version 5.0 help manual” by including a “detail drawing” as claimed, as expressly motivated by Kuczun to improve the usability of network CAD tools [*“Because network designers traditionally make drawings throughout the design process, we propose that the computational environment should facilitate and capitalize on this activity. We describe a suite of computer based network design tools that employ freehand drawing as an interface.”* (page 1, abstract)].

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR)

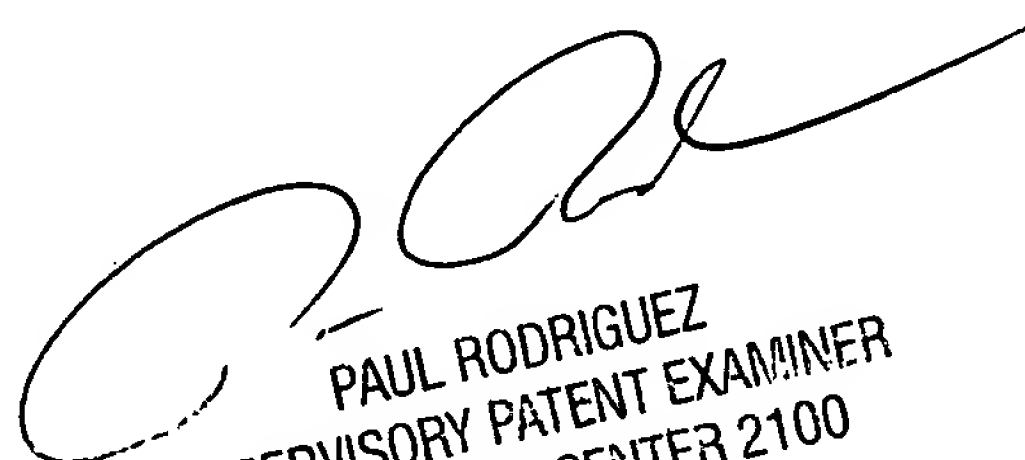
Application/Control Number:  
09/897,429  
Art Unit: 2123

Page 21

system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor  
Examiner  
Art Unit 2123

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PAUL RODRIGUEZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100